

What is claimed is:

1 1. A capacitor, comprising:
2 a first electrode, a second electrode, and a dielectric disposed between
3 the first and second electrodes;
4 a first plurality of terminals electrically connected to the first electrode at a
5 first surface of the capacitor; and
6 a second plurality of terminals electrically connected to the second
7 electrode at the first surface of the capacitor.

1 2. The capacitor of Claim 1, further comprising:
2 a third plurality of terminals electrically connected to the first electrode at a
3 second surface of the capacitor; and
4 a fourth plurality of terminals electrically connected to the second
5 electrode at the second surface of the capacitor.

1 3. The capacitor of Claim 1, wherein the first electrode comprises tantalum,
2 the second electrode comprises conductive material, and the dielectric
3 comprises tantalum oxide.

1 4. The capacitor of Claim 1, wherein the first electrode comprises a first
2 metal, the second electrode comprises manganese oxide, and the dielectric
3 comprises an oxide of the first metal.

1 5. The capacitor of Claim 1, wherein the capacitor has a rectangular shape.

1 6. The capacitor of Claim 1, wherein the first electrode comprises aluminum,
2 the second electrode comprises conductive material, and the dielectric
3 comprises aluminum oxide.

1 7. The capacitor of Claim 1, wherein the first electrode comprises niobium,
2 the second electrode comprises conductive material, and the dielectric
3 comprises niobium oxide.

1 8. The capacitor of Claim 1, wherein at least a portion of the first and second
2 plurality of terminals comprise solder bumps.

1 9. The capacitor of Claim 2, wherein at least a portion of the third and fourth
2 plurality of terminals comprise solder bumps.

1 10. The capacitor of Claim 2, wherein at least a portion of the first plurality of
2 terminals have a first pitch, and at least a portion of the third plurality of terminals
3 have a second pitch which is different from the first pitch.

1 11. The capacitor of Claim 2, wherein at least a portion of the first plurality of
2 terminals have a first shape, and at least a portion of the third plurality of
3 terminals have a second shape which is different from the first shape.

1 12. The capacitor of Claim 1, wherein at least a portion of the first and second
2 plurality of terminals are at least partially coated with an oxidation barrier.

1 13. The capacitor of Claim 11, wherein the oxidation barrier comprises gold.

1 14. A capacitor having a rectangular box shape with a first and a second
2 major surface, comprising:

3 a first electrode and a second electrode, the electrodes having a dielectric
4 disposed therebetween;

5 a plurality of terminals attached to the first electrode at the first major
6 surface; and

7 a plurality of terminals attached to the second electrode at the first major
8 surface.

1 15. The capacitor of the Claim 14, wherein the electrodes and terminals
2 comprise tantalum, and the dielectric comprises tantalum oxide.

1 16. The capacitor of Claim 14, further comprising a plurality of terminals
2 attached to the first electrode at the second major surface.

1 17. The capacitor of Claim 14, further comprising a plurality of terminals
2 attached to the second electrode at the second major surface.

1 18. An electronic assembly, comprising:
2 an integrated circuit having a width and a length;
3 a capacitor having a width and a length;
4 wherein the capacitor is attached to the integrated circuit, and the width
5 and length of the capacitor are substantially the same as the width and length of
6 the integrated circuit.

1 19. The capacitor of Claim 18, wherein the capacitor has a plurality of first
2 electrode terminals on a first surface thereof, and a plurality of second electrode
3 terminals on the first surface.

1 20. An electronic assembly, comprising:
2 a capacitor having a first electrode, a second electrode, and a dielectric
3 disposed therebetween, the capacitor further having a first and a second major
4 surface;
5 a first plurality of terminals electrically coupled to the first electrode, and a
6 second plurality of terminals electrically coupled to the second electrode;
7 an IC having a third and fourth plurality of terminals disposed on a first
8 surface of the IC, the third and fourth plurality of terminals electrically coupled to
9 a first and a second power supply node respectively;
10 wherein the first and third plurality of terminals are electrically coupled,
11 and the second and fourth plurality of terminals are electrically coupled.

1 21. The method of Claim 20, wherein the third and fourth plurality of terminals
2 comprise solder bumps.

1 22. The method of Claim 20, wherein the first and third plurality, and the
2 second and fourth plurality of terminals are coupled by solder.

1 23. The method of Claim 20, wherein the capacitor has a substantially
2 rectangular shape.